Psychoneuroendocrinology

An International Journal

Editor-in-Chief

Robert T. Rubin

Harbor – U.C.L.A. Medical Center, Torrance, California

Associate Editor

Harvey H. Feder

Rutgers University, Newark, New Jersey

Volume Contents, Author and Key-Word-In-Context Indexes for Volume 16 (1991)

Pergamon Press

Oxford · New York · Seoul · Tokyo

Psychoneuroendocrinology

An International Journal

Editor-in-Chief

ROBERT T. RUBIN, Harbor – U.C.L.A. Medical Center, Torrance, California

Associate Editor

HARVEY H. FEDER, Rutgers University, Newark, New Jersey

Editorial Assistant

EVELYN J. FORD, Harbor – U.C.L.A. Medical Center, Torrance, California

Editorial Board

J. Bancroft (*Edinburgh*)
P. J. V. Beumont (*Sydney*)
B. Bohus (*Groningen*)
W. A. Brown (*Providence*)
D. L. Copolov (*Melbourne*)
I. Creese (*Newark*)
G. Fink (*Edinburgh*)
U. Halbreich (*Buffalo*)
F. Holsboer (*Mainz*)
I. Izquierdo (*Port Alegre*)
H. C. Kraemer (*Stanford*)
B. S. McEwen (*New York*)
J. Meyerhoff (*Washington D.C.*)
J. Money (*Baltimore*)
R. Murison (*Bergen*)
F. Naftolin (*New Haven*)
R. E. Poland (*Torrance*)
S. Reichlin (*Boston*)
S. Watson (*Ann Arbor*)

Publishing and Advertising Offices

Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW, U.K.

1992 *Annual Subscription Rates* (including postage and insurance)

Annual institutional subscription rate (1992): £240.00 (US$435.00).
Two year institutional rate (1992/93): £456.00 (US$826.50).
Sterling prices are definitive. US dollar prices are quoted for convenience only, and are subject to exchange rate fluctuation.
Personal subscription rate for those whose library subscribes at the regular rate (1992) is available on request.
Members of the International Society of Psychoneuroendocrinology may order personal subscriptions at a concessional rate and details are available on request. Subscription rates for Japan are available on application.
Prices are subject to change without notice.

Subscription enquiries from customers in North America should be sent to: Pergamon Press Inc., 395 Saw Mill River Road, Elmsford, NY 10523, U.S.A., and for the remainder of the world to: Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW, U.K.

Published six times per year

Whilst every effort is made by the publishers and editorial board to see that no inaccurate or misleading data, opinion or statement appear in this journal, they wish to make it clear that the data and opinions appearing in the articles and advertisements herein are the sole responsibility of the contributor or advertiser concerned. Accordingly, the publishers, the editorial board and editors and their respective employees, officers and agents accept no responsibility or liability whatsoever for the consequences of any such inaccurate or misleading data, opinion or statement.

Copyright © 1992 Pergamon Press plc

LIST OF CONTENTS—VOLUME 16

NUMBERS 1–3

Special Issue: Neuroendocrine Effects on Brain Development and Cognition

Editorials

R. T. RUBIN, EDITOR-IN-CHIEF — 1 — 1991 Miscellany

P. TALLAL and B. S. MCEWEN, GUEST EDITORS — 3 — Neuroendocrine effects on brain development and cognition

Reviews

C. D. TORAN-ALLERAND — 7 — Organotypic culture of the developing cerebral cortex and hypothalamus: relevance to sexual differentiation

A. MATSUMOTO — 25 — Synaptogenic action of sex steroids in developing and adult neuroendocrine brain

T. J. DEVOOGD — 41 — Endocrine modulation of the development and adult function of the avian song system

E. GOULD, C. S. WOOLLEY and B. S. MCEWEN — 67 — The hippocampal formation: morphological changes induced by thyroid, gonadal and adrenal hormones

M. J. MEANEY, J. B. MITCHELL, D. H. AITKEN, S. BHATNAGAR, S. R. BODNOFF, L. J. INY and A. SARRIEAU — 85 — The effects of neonatal handling on the development of the adrenocortical response to stress: implications for neuropathology and cognitive deficits in later life

J. M. JURASKA — 105 — Sex differences in "cognitive" regions of the rat brain

M. C. DIAMOND — 121 — Hormonal effects on the development of cerebral lateralization

S. F. WITELSON — 131 — Neural sexual mosaicism: sexual differentiation of the human temporo-parietal region for functional asymmetry

C. L. WILLIAMS and W. H. MECK — 155 — The organizational effects of gonadal steroids on sexually dimorphic spatial ability

J. BACHEVALIER and C. HAGGER — 177 — Sex differences in the development of learning abilities in primates

R. NASS and S. BAKER — 189 — Androgen effects on cognition: congenital adrenal hyperplasia

P. TALLAL — 203 — Hormonal influences in developmental learning disabilities

J. M. REINISCH, M. ZIEMBA-DAVIS and S. A. SANDERS — 213 — Hormonal contributions to sexually dimorphic behavioral development in humans

Announcements — 279

ISPNE Membership Form

NUMBER 4

Review

R. M. SAPOLSKY 281 Testicular function, social rank and personality among wild baboons

Reports

M. MAES, B. MINNER, E. SUY, P. D'HONDT, M.-P. JACOBS and J. RAUS 295 Cortisol escape from suppression by dexamethasone during depression is strongly predicted by basal cortisol hypersecretion and increasing age combined

C. JOBORN, J. HETTA, F. NIKLASSON, J. RASTAD, L. WIDE, H. ÅGREN, G. ÅKERSTRÖM and S. LJUNGHALL 311 Cerebrospinal fluid calcium, parathyroid hormone, and monoamine and purine metabolites and the blood–brain barrier function in primary hyperparathyroidism

C. GOUCHIE and D. KIMURA 323 The relationship between testosterone levels and cognitive ability patterns

C. J. HANNAN, JR., K. E. FRIEDL, A. ZOLD, T. M. KETTLER and S. R. PLYMATE 335 Psychological and serum homovanillic acid changes in men administered androgenic steroids

Z. KRONFOL, G. HAMDAN-ALLEN, K. GOEL and E. M. HILL 345 Effects of single and repeated electroconvulsive therapy sessions on plasma ACTH, prolactin, growth hormone and cortisol concentrations

H. C. WILSON, S. H. KIEFHABER and V. GRAVEL 353 Two studies of menstrual synchrony: negative results

Short Communication

L. DE MARINIS, A. MANCINI, P. ZUPPI, C. D'AMICO, C. FIUMARA, F. CALABRO, G. LAGONIGRO and A. LA BROCCA 361 GH response to GHRH before and after meals at different hours of the day in obese patients

Book Reviews

R. T. RUBIN 367 Corticotropin-Releasing Factor: Basic and Clinical Studies of a Neuropeptide

E. T. CUNNINGHAM, JR. 368 Ultrastructural Immunocytochemistry of the Hypothalamic Corticotropin Releasing Hormone Synthesizing System

Erratum 369

Announcements 373

ISPNE Membership Form

NUMBER 5

Reports

I. SCHWEITZER, V. M. TUCKWELL, K. P. MAGUIRE, J. W. G. TILLER, L. C. HARRISON and B. M. DAVIES 375 Plasma cortisol and 11-deoxycortisol activity in depressed patients and normal volunteers

C. FABRE-NYS and G. VENIER 383 Sexual differentiation of sexual behaviour and preovulatory LH surge in ewes

S. Feldman and J. Weidenfeld 397 Depletion of hypothalamic norepinephrine and serotonin enhances the dexamethasone negative feedback effect on adrenocortical secretion

D. J. J. Carr and J. E. Blalock 407 Naloxone administration *in vivo* stereoselectively alters antigen-dependent and antigen-independent immune responses

F. Fraschini, D. Esposti, G. Demartini, F. Scaglione, V. Lucini, M. Mariana, B. Stankov and M. Mancia 417 *In vivo* and *in vitro* studies on modulation of the pineal endocrine function by L-acetylcarnitine in the rat

F. Chiappelli, H. E. Gwirtsman, M. Lowy, G. Gormley, L. D. Nguyen, L. Nguyen, J. Popow, I. Esmail, J. L. Fahey and M. Strober 423 Pituitary-adrenal-immune system in normal subjects and in patients with anorexia nervosa: the number of circulating helper T lymphocytes (CD4) expressing the homing receptor Leu8 is regulated in part by pituitary-adrenal products

O. F. Pomerleau, C. S. Pomerleau, E. M. Morrell and J. M. Lowenbergh 433 Effects of fluoxetine on weight gain and food intake in smokers who reduce nicotine intake

M. Soyka, E. Görig and D. Naber 441 Serum prolactin increase induced by ethanol — a dose-dependent effect not related to stress

R. G. McMurray, E. Newbould, P. Bouloux, G. M. Besser and A. Grossman 447 High-dose naloxone modifies cardiovascular and neuroendocrine function in ambulant subjects

Announcements 457

ISPNE Membership Form

NUMBER 6

C. M. McCormick and S. F. Witelson 459 A cognitive profile of homosexual men compared to heterosexual men and women

C. Marchesi, P. Chiodera, A. De Ferri, C. De Risio, L. Dassó, P. Menozzi, R. Volpi and V. Coiro 475 Reduction of GH response to the GABA-B agonist baclofen in patients with major depression

T. L. Gehris, R. Kathol, W. H. Meller, J. F. Lopez and R. S. Jaeckle 481 Multiple steroid hormone levels in depressed patients and normal controls before and after exogenous ACTH

L. De Marinis, A. Mancini, C. D'Amico, P. Zuppi, A. Tofani, S. Della Casa, A. Saporosi, P. Sambo, C. Fiumara, F. Calabró and A. Barbarino 499 Influence of naloxone infusion on prolactin and growth hormone response to growth hormone-releasing hormone in anorexia nervosa

A. Peiffer, S. Veilleux and N. Barden — 505 — Antidepressant and other centrally acting drugs regulate glucocorticoid receptor messenger RNA levels in rat brain

C. Hiemke, A. Jussofie and M. Jüptner — 517 — Evidence that 3α-hydroxy-5α-pregnan-20-one is a physiologically relevant modulator of GABA-ergic neurotransmission

D. de Catanzaro, E. MacNiven and F. Ricciuti — 525 — Comparison of the adverse effects of adrenal and ovarian steroids on early pregnancy in mice

M. Orosco, C. Rouch, D. Gripois, M.-F. Blouquit, J. Roffi, C. Jacquot and Y. Cohen — 537 — Effects of insulin on brain monoamine metabolism in the Zucker rat: influence of genotype and age

M. S. Bitar, M. Ota, M. Linnoila and B. H. Shapiro — 547 — Modification of gonadectomy-induced increases in brain monoamine metabolism by steroid hormones in male and female rats

K. L. Huhman, M. A. Hebert, J. L. Meyerhoff and B. N. Bunnell — 559 — Plasma cyclic AMP increases in hamsters following exposure to a graded footshock stressor

Book Review

J. Money — 565 — W. B. Cutler, *Love Cycles: The Science of Intimacy*

Announcements — 567

ISPNE Membership Form

PSYCHONEUROENDOCRINOLOGY
AUTHOR AND KWIC INDEXES
VOLUME 16, 1991

Both the author and the Key-Word-In-Context (KWIC) indexes list the volume number and the first page for each citation. In the author index, authors of every article are listed. In the KWIC index, each significant work of every title is listed alphabetically, within the context of its title. (Each listing includes a portion of the title just preceding and just following the key word.) For example, to conduct a search for all citations on 'cortisol', one also should look under the alternate terms 'adrenocortical' and 'corticosteroids' to be certain all pertinent information is retrieved.

AUTHOR INDEX

Ågren, H. 311
Aitken, D. H. 85
Åkerström, G. 311

Bachevalier, J. 177
Baker, S. 189
Barbarino, A. 499
Barden, N. 505
Besser, G. M. 447
Bhatnagar, S. 85
Bitar, M. S. 547
Blalock, J. E. 407
Blouquit, M.-F. 537
Bodnoff, S. R. 85
Bouloux, P. 447
Bunnell, B. N. 559

Calabró, F. 361, 499
Carr, D. J. J. 407
Chiappelli, F. 423
Chiodera, P. 475
Cohen, Y. 537
Coiro, V. 475
Cunningham, E. T. Jr 368

D'Amico, C. 361, 499
D'Hondt, P. 295
Dassó, L. 475
Davies, B. M. 375
de Catanzaro, D. 525
De Ferri, A. 475
De Marinis, L. 361, 499
De Risio, C. 475
Della Casa, S. 499
Demartini, G. 417
DeVoogd, T. J. 41
Diamond, M. C. 121

Esmail, I. 423
Esposti, D. 417

Fabre-Nys, C. 383
Fahey, J. L. 423
Feldman, S. 397
Fiumara, C. 361, 499
Fraschini, F. 417
Friedl, K. E. 335

Gehris, T. L. 481
Goel, K. 345
Görig, E. 441
Gormley, G. 423
Gouchie, C. 323
Gould, E. 67
Gravel, V. 353
Gripois, D. 537
Grossman, A. 447
Gwirtsman, H. E. 423

Hagger, C. 177
Hamdan-Allen, G. 345
Hannan, C. J. Jr 335
Harrison, L. C. 375
Hebert, M. A. 559
Hetta, J. 311
Hiemke, C. 517
Hill, E. M. 345
Huhman, K. L. 559

Iny L. J. 85

Jacobs, M.-P. 295
Jacquot, C. 537
Jaeckle, R. S. 481
Joborn, C. 311
Jüptner, M. 517
Juraska, J. M. 105
Jussofie, A. 517

Kathol, R. 481
Kettler, T. M. 335
Kiefhaber, S. H. 353
Kimura, D. 323
Kronfol, Z. 345

La Brocca, A. 361
Lagonigro, G. 361
Linnoila, M. 547
Ljunghall, S. 311
Lopez, J. F. 481
Lowenbergh, J. M. 433
Lowy, M. 423
Lucini, V. 417

MacNiven, E. 525
Maes, M. 295
Maguire, K. P. 375
Mancia, M. 417
Mancini, A. 361, 499
Marchesi, C. 475
Mariani, M. 417
Matsumoto, A. 25
McCormick, C. M. 459
McEwen, B. S. 3, 67
McMurray, R. G. 447
Meaney, M. J. 85
Meck, W. H. 155
Meller, W. H. 481
Menozzi, P. 475
Meyerhoff, J. L. 559
Minner, B. 295
Mitchell, J. B. 85
Money, J. 565
Morrell, E. M. 433

Naber, D. 441
Nass, R. 189
Newbould, E. 447
Nguyen, L. 423
Nguyen, L. D. 423
Niklasson, F. 311

Orosco, M. 537
Ota, M. 547

Peiffer, A. 505
Plymate, S. R. 335
Pomerleau, C. S. 433
Pomerleau, O. F. 433
Popow, J. 423

Rastad, J. 311
Raus, J. 295
Reinisch, J. M. 213
Ricciuti, F. 525
Roffi, J. 537
Rouch, C. 537
Rubin, R. T. 1, 367

Sambo, P. 499
Sanders, S. A. 213
Sapolsky, R. M. 281
Saporosi, A. 499
Sarrieau, A. 85
Scaglione, F. 417
Schweitzer, I. 375
Shapiro, B. H. 547
Soyka, M. 441
Stankov, B. 417
Strober, M. 423
Suy, E. 295

Tallal, P. 3, 203
Tiller, J. W. G. 375
Tofani, A. 499
Toran-Allerand, C. D. 7
Tuckwell, V. M. 375

Veilleux, S. 505
Venier, G. 383
Volpi, R. 475

Weidenfeld, J. 397
Wide, L. 311
Williams, C. L. 155
Wilson, H. C. 353
Witelson, S. F. 131, 459
Woolley, C. S. 67

Ziemba-Davis, M. 213
Zold, A. 335
Zuppi, P. 361, 499

n Evidence that 3-	α-hydroxy-5-α-pregnan-2	517	gion for functional	asymmetry Neural sexua	131
that 3-α-hydroxy-5-	α-pregnan-20-one is a p	517	ult function of the	avian song system Endo	41
Plasma cortisol and	11-deoxycortisol activi	375	sonality among wild	baboons Testicular fun	281
cellany Editorial:	1991 Miscellany Editor	1	the GABA-B agonist	baclofen in patients wi	475
ydroxy-5-α-pregnan-	20-one is a physiologic	517	and the blood-brain	barrier function in pri	311
sion Evidence that	3-α-hydroxy-5-α-pregnan	517	rongly predicted by	basal cortisol hypersec	295
e that 3-α-hydroxy-	5-α-pregnan-20-one is a	517	n-Releasing Factor:	Basic and Clinical Stud	367
			entiation of sexual	behaviour and preovulat	383
lopment of learning	abilities in primates	177	metabolites and the	blood-brain barrier fun	311
evels and cognitive	ability patterns The r	323	cience of Intimacy	Book Review: Cutler WB,	565
y dimorphic spatial	ability The organizati	155	of a Neuropeptide	Book Review: De Souza E	367
rine function by L-	acetyl-carnitine in the	417	ynthesizing System	Book Review: Liposits Z	368
serum homovanillic	acid changes in men adm	335	r RNA levels in rat	brain Antidepressant a	505
and after exogenous	ACTH Multiple steroid	481	ites and the blood-	brain barrier function	311
sessions on plasma	ACTH, prolactin, growth	345	ndocrine effects on	brain development and c	3
and other centrally	acting drugs regulate g	505	fects of insulin on	brain monoamine metabol	537
brain Synaptogenic	action of sex steroids	25	nduced increases in	brain monoamine metabol	547
nd 11-deoxycortisol	activity in depressed p	375	regions of the rat	brain Sex differences	105
acid changes in men	administered androgenic	335	dult neuroendocrine	brain Synaptogenic act	25
responses Naloxone	administration in vivo	407			
adverse effects of	adrenal and ovarian ste	525	Cerebrospinal fluid	calcium, parathyroid ho	311
hyroid, gonadal and	adrenal hormones The h	67	e naloxone modifies	cardiovascular and neur	447
gnition: congenital	adrenal hyperplasia An	189	nction by L-acetyl-	carnitine in the rat I	417
part by pituitary-	adrenal products Pitui	423	per T lymphocytes (	CD4) expressing the hom	423
roducts Pituitary-	adrenal-immune system i	423	epressant and other	centrally acting drugs	505
development of the	adrenocortical response	85	e of the developing	cerebral cortex and hyp	7
feedback effect on	adrenocortical secretio	397	the development of	cerebral lateralization	121
the development and	adult function of the a	41	yperparathyroidism	Cerebrospinal fluid cal	311
Comparison of the	adverse effects of adre	525	m homovanillic acid	changes in men administ	335
tion and increasing	age combined Cortisol	295	tion: morphological	changes induced by thyr	67
nce of genotype and	age Effects of insulin	537	vosa: the number of	circulating helper T ly	423
ponse to the GABA-B	agonist baclofen in pat	475	g Factor: Basic and	Clinical Studies of a N	367
o stereoselectively	alters antigen-dependen	407	ain development and	cognition Editorial: N	3
docrine function in	ambulant subjects High	447	Androgen effects on	cognition: congenital a	189
ank and personality	among wild baboons Tes	281	osterone levels and	cognitive ability patte	323
ssor Plasma cyclic	AMP increases in hamste	559	al men and women A	cognitive profile of ho	459
drenal hyperplasia	Androgen effects on cog	189	ex differences in "	cognitive" regions of t	105
in men administered	androgenic steroids Ps	335	and increasing age	combined Cortisol esca	295
eleasing hormone in	anorexia nervosa Influ	499	pregnancy in mice	Comparison of the adver	525
nd in patients with	anorexia nervosa: the n	423	ormone and cortisol	concentrations Effects	345
evels in rat brain	Antidepressant and othe	505	fects on cognition:	congenital adrenal hype	189
oselectively alters	antígen-dependent and a	407	in humans Hormonal	contributions to sexual	213
tigen-dependent and	antigen-independent imm	407	patients and normal	controls before and aft	481

developing cerebral cortex and hypothalamus 7
Nemeroff CB (Eds), Corticotropin-Releasing 367
of the Hypothalamic Corticotropin Releasing 368
volunteers Plasma cortisol and 11-deoxyco 375
growth hormone and cortisol concentrations 345
asing age combined Cortisol escape from su 295
predicted by basal cortisol hypersecretion 295
iation Organotypic culture of the developi 7
macy Book Review: Cutler WB, Love Cycles: 565
ew: Cutler WB, Love Cycles: The Science of 565
ck stressor Plasma cyclic AMP increases in 559

ferent hours of the day in obese patients 361
ology and cognitive deficits in later life 85
ma cortisol and 11- deoxycortisol activity 375
ely alters antigen- dependent and antigen-i 407
by ethanol: a dose- dependent phenomenon no 441
cortical secretion Depletion of hypothalam 397
d hormone levels in depressed patients and 481
examethasone during depression is strongly 295
patients with major depression Reduction o 475
of sex steroids in developing and adult ne 25
ypic culture of the developing cerebral cor 7
e modulation of the development and adult f 41
ne effects on brain development and cogniti 3
imorphic behavioral development in humans 213
onal effects on the development of cerebral 121
differences in the development of learning 177
tal handling on the development of the adre 85
monal influences in developmental learning 203
from suppression by dexamethasone during de 295
otonin enhances the dexamethasone negative 397
es in primates Sex differences in the deve 177
the rat brain Sex differences in "cogniti 105
and after meals at different hours of the 361
rge in ewes Sexual differentiation of sexu 383
l mosaicism: sexual differentiation of the 131
relevance to sexual differentiation Organo 7
butions to sexually dimorphic behavioral de 213
teroids on sexually dimorphic spatial abili 155
elopmental learning disabilities Hormonal 203
duced by ethanol: a dose-dependent phenomen 441
er centrally acting drugs regulate glucocor 505

ovarian steroids on early pregnancy in mice 525
Souza EB, Nemeroff CB (Eds), Corticotropin 367
ok Review: De Souza EB, Nemeroff CB (Eds), 367
1: 1991 Miscellany Editorial: 1991 Miscell 1
ment and cognition Editorial: Neuroendocri 3
a EB, Nemeroff CB (Eds), Corticotropin-Rel 367
ial: Neuroendocrine effects on brain develo 3
single and repeated electroconvulsive thera 345
ation of the pineal endocrine function by L 417
avian song system Endocrine modulation of 41
hrine and serotonin enhances the dexamethas 397
modulator of GABA- ergic neurotransmission 517
combined Cortisol escape from suppression 295
release induced by ethanol: a dose-depende 441
c neurotransmission Evidence that 3-α-hydro 517
ulatory LH surge in ewes Sexual differenti 383
ls before and after exogenous ACTH Multipl 481
hamsters following exposure to a graded fo 559
T lymphocytes (CD4) expressing the homing r 423

icotropin-Releasing Factor: Basic and Clini 367
amethasone negative feedback effect on adre 397
ormones in male and female rats Modificati 547
dism Cerebrospinal fluid calcium, parathyr 311
intake Effects of fluoxetine upon weight 433
pon weight gain and food intake in smokers 433
xposure to a graded footshock stressor Pla 559
es The hippocampal formation: morphologica 67
and neuroendocrine function in ambulant su 447
blood-brain barrier function in primary hyp 311
velopment and adult function of the avian s 41
baboons Testicular function, social rank a 281
parietal region for functional asymmetry N 131

GH response to the GABA-B agonist baclofen 475
levant modulator of GABA-ergic neurotransmi 517
oxetine upon weight gain and food intake in 433
r rat: influence of genotype and age Effec 537
in obese patients GH response to GHRH bef 361
ssion Reduction of GH response to the GABA 475
nts GH response to GHRH before and after m 361
ting drugs regulate glucocorticoid receptor 505
induced by thyroid, gonadal and adrenal hor 67
zational effects of gonadal steroids on sex 155

ts Modification of	gonadectomy-induced inc	547	n anorexia nervosa	Influence of naloxone i	499
owing exposure to a	graded footshock stress	559	abilities Hormonal	influences in developme	203
ma ACTH, prolactin,	growth hormone and cort	345	fluence of naloxone	infusion on prolactin a	499
on on prolactin and	growth hormone response	499	and age Effects of	insulin on brain monoam	537
hormone response to	growth hormone-releasin	499	who reduce nicotine	intake Effects of fluo	433
			eight gain and food	intake in smokers who r	433
ic AMP increases in	hamsters following expo	559	les: The Science of	Intimacy Book Review:	565
mber of circulating	helper T lymphocytes (C	423			
ual men compared to	heterosexual men and wo	459	gnitive deficits in	later life The effects	85
ambulant subjects	High-dose naloxone modi	447	lopment of cerebral	lateralization Hormona	121
renal hormones The	hippocampal formation:	67	the development of	learning abilities in p	177
CD4) expressing the	homing receptor Leu8 is	423	es in developmental	learning disabilities	203
ognitive profile of	homosexual men compared	459	etween testosterone	levels and cognitive ab	323
hological and serum	homovanillic acid chang	335	ple steroid hormone	levels in depressed pat	481
elopment in humans	Hormonal contributions	213	eptor messenger RNA	levels in rat brain An	505
ral lateralization	Hormonal effects on the	121	ur and preovulatory	LH surge in ewes Sexua	383
rning disabilities	Hormonal influences in	203	e deficits in later	life The effects of ne	85
, prolactin, growth	hormone and cortisol co	345	ystem Book Review:	Liposits Z, Ultrastruct	368
h hormone-releasing	hormone in anorexia ner	499	Review: Cutler WB,	Love Cycles: The Scienc	565
H Multiple steroid	hormone levels in depre	481	irculating helper T	lymphocytes (CD4) expre	423
rolactin and growth	hormone response to gro	499			
icotropin Releasing	Hormone Synthesizing Sy	368	en in patients with	major depression Reduc	475
alcium, parathyroid	hormone, and monoamine	311	steroid hormones in	male and female rats M	547
response to growth	hormone-releasing hormo	499	RH before and after	meals at different hour	361
tabolism by steroid	hormones in male and fe	547	lic acid changes in	men administered androg	335
gonadal and adrenal	hormones The hippocamp	67	red to heterosexual	men and women A cognit	459
meals at different	hours of the day in obe	361	ofile of homosexual	men compared to heteros	459
ferentiation of the	human temporo-parietal	131	lts Two studies of	menstrual synchrony: ne	353
oral development in	humans Hormonal contri	213	ocorticoid receptor	messenger RNA levels in	505
Evidence that 3-α-	hydroxy-5-α-pregnan-20-	517	in brain monoamine	metabolism by steroid h	547
function in primary	hyperparathyroidism Ce	311	on brain monoamine	metabolism in the Zucke	537
d by basal cortisol	hypersecretion and incr	295	onoamine and purine	metabolites and the blo	311
ytochemistry of the	Hypothalamic Corticotro	368	early pregnancy in	mice Comparison of the	525
etion Depletion of	hypothalamic norepineph	397	ny Editorial: 1991	Miscellany Editorial:	1
cerebral cortex and	hypothalamus: relevance	7	le and female rats	Modification of gonadec	547
			High-dose naloxone	modifies cardiovascular	447
antigen-independent	immune responses Nalox	407	g system Endocrine	modulation of the devel	41
Pituitary-adrenal-	immune system in normal	423	ologically relevant	modulator of GABA-ergic	517
Z, Ultrastructural	Immunocytochemistry of	368	hyroid hormone, and	monoamine and purine me	311
gonadectomy-induced	increases in brain mono	547	increases in brain	monoamine metabolism by	547
Plasma cyclic AMP	increases in hamsters f	559	of insulin on brain	monoamine metabolism in	537
hypersecretion and	increasing age combined	295	pocampal formation:	morphological changes i	67
endent and antigen-	independent immune resp	407	etry Neural sexual	mosaicism: sexual diffe	131
in the Zucker rat:	influence of genotype a	537	ter exogenous ACTH	Multiple steroid hormon	481

t immune responses Naloxone administration 407
rvosa Influence of naloxone infusion on pr 499
subjects High-dose naloxone modifies cardi 447
s the dexamethasone negative feedback effec 397
enstrual synchrony: negative results Two s 353
eview: De Souza EB, Nemeroff CB (Eds), Cort 367
ife The effects of neonatal handling on th 85
hormone in anorexia nervosa Influence of n 499
ients with anorexia nervosa: the number of 423
nctional asymmetry Neural sexual mosaicism 131
gnition Editorial: Neuroendocrine effects 3
eveloping and adult neuroendocrine brain S 25
cardiovascular and neuroendocrine function 447
s: implications for neuropathology and cogn 85
inical Studies of a Neuropeptide Book Revi 367
smokers who reduce nicotine intake Effect 433
ion of hypothalamic norepinephrine and sero 397
ressed patients and normal controls before 481
ressed patients and normal volunteers Plas 375
orexia nervosa: the number of circulating h 423

hours of the day in obese patients GH resp 361
patial ability The organizational effects 155
al differentiation Organotypic culture of 7
ects of adrenal and ovarian steroids on ear 525

inal fluid calcium, parathyroid hormone, an 311
the human temporo- parietal region for fun 131
eu8 is regulated in part by pituitary-adren 423
levels in depressed patients and normal con 481
tivity in depressed patients and normal vol 375
of the day in obese patients GH response t 361
mal subjects and in patients with anorexia 423
agonist baclofen in patients with major dep 475
d cognitive ability patterns The relation 323
on, social rank and personality among wild 281
1: a dose-dependent phenomenon not related 441
regnan-20-one is a physiologically relevan 517
n modulation of the pineal endocrine functi 417
egulated in part by pituitary-adrenal produ 423
y-adrenal products Pituitary-adrenal-immun 423
normal volunteers Plasma cortisol and 11- 375
footshock stressor Plasma cyclic AMP incre 559
ression is strongly predicted by basal cort 295

at 3-α-hydroxy-5-α- pregnan-20-one is a phy 517
n steroids on early pregnancy in mice Comp 525
exual behaviour and preovulatory LH surge i 383
barrier function in primary hyperparathyroi 311
arning abilities in primates Sex differenc 177
y pituitary-adrenal products Pituitary-adr 423
women A cognitive profile of homosexual m 459
aloxone infusion on prolactin and growth ho 499
ed to stress Serum prolactin release induc 441
ons on plasma ACTH, prolactin, growth hormo 345
ndrogenic steroids Psychological and serum 335
, and monoamine and purine metabolites and 311

ar function, social rank and personality am 281
enger RNA levels in rat brain Antidepressa 505
ive" regions of the rat brain Sex differen 105
yl-carnitine in the rat In vivo and in vit 417
olism in the Zucker rat: influence of genot 537
in male and female rats Modification of g 547
pressing the homing receptor Leu8 is regula 423

h major depression Reduction of GH respons 475
an temporo-parietal region for functional a 131
nces in "cognitive" regions of the rat brai 105
trally acting drugs regulate glucocorticoid 505
ng receptor Leu8 is regulated in part by pi 423
ss Serum prolactin release induced by etha 441
ds), Corticotropin- Releasing Factor: Basic 367
lamic Corticotropin Releasing Hormone Synth 368
to growth hormone- releasing hormone in an 499
x and hypothalamus: relevance to sexual dif 7
s a physiologically relevant modulator of G 517
fects of single and repeated electroconvuls 345
obese patients GH response to GHRH before 361
and growth hormone response to growth horm 499
the adrenocortical response to stress: imp 85
on Reduction of GH response to the GABA-B 475
-independent immune responses Naloxone adm 407
synchrony: negative results Two studies of 353
e of Intimacy Book Review: Cutler WB, Love 565
Neuropeptide Book Review: De Souza EB, Ne 367
sizing System Book Review: Liposits Z, Ult 368
receptor messenger RNA levels in rat brain 505

r, Love Cycles: The Science of Intimacy Bo 565
t on adrenocortical secretion Depletion of 397
norepinephrine and serotonin enhances the 397
Psychological and serum homovanillic acid 335
related to stress Serum prolactin release 441
oconvulsive therapy sessions on plasma ACTH 345
s of the rat brain Sex differences in "cog 105
aptogenic action of sex steroids in develop 25
differentiation of sexual behaviour and pr 383
y LH surge in ewes Sexual differentiation 383
lamus: relevance to sexual differentiation 7
l sexual mosaicism: sexual differentiation 131
l asymmetry Neural sexual mosaicism: sexua 131
al contributions to sexually dimorphic beha 213
gonadal steroids on sexually dimorphic spat 155
rations Effects of single and repeated ele 345
and food intake in smokers who reduce nico 433
esticular function, social rank and persona 281
nction of the avian song system Endocrine 41
sexually dimorphic spatial ability The or 155
inistration in vivo stereoselectively alter 407
nous ACTH Multiple steroid hormone levels 481
amine metabolism by steroid hormones in mal 547
genic action of sex steroids in developing 25
adrenal and ovarian steroids on early pregn 525
effects of gonadal steroids on sexually di 155
nistered androgenic steroids Psychological 335
enon not related to stress Serum prolactin 441
a graded footshock stressor Plasma cyclic 559
uring depression is strongly predicted by b 295
Basic and Clinical Studies of a Neuropepti 367
gative results Two studies of menstrual sy 353
n vivo and in vitro studies on modulation o 417
ne system in normal subjects and in patient 423
unction in ambulant subjects High-dose nal 447
ortisol escape from suppression by dexameth 295
and preovulatory LH surge in ewes Sexual d 383
uroendocrine brain Synaptogenic action of 25
tudies of menstrual synchrony: negative res 353
n Releasing Hormone Synthesizing System Bo 368
ormone Synthesizing System Book Review: Li 368
n of the avian song system Endocrine modul 41
tary-adrenal-immune system in normal subjec 423

iation of the human temporo-parietal region 131
among wild baboons Testicular function, so 281
he relation between testosterone levels and 323
d electroconvulsive therapy sessions on pla 345
changes induced by thyroid, gonadal and ad 67
: negative results Two studies of menstrua 353

Review: Liposits Z, Ultrastructural Immunoc 368
fects of fluoxetine upon weight gain and fo 433

tine in the rat In vivo and in vitro studi 417
e administration in vivo stereoselectively 407
patients and normal volunteers Plasma cort 375

imacy Book Review: WB Cutler, Love Cycles: 565
of fluoxetine upon weight gain and food in 433
d intake in smokers who reduce nicotine int 433
d personality among wild baboons Testicula 281
eterosexual men and women A cognitive prof 459

ok Review: Liposits Z, Ultrastructural Immu 368
e metabolism in the Zucker rat: influence o 537

SEND FOR A FREE SAMPLE COPY OF...

NEUROPHARMACOLOGY

Editors-in-Chief: **P B BRADLEY**, *The Medical School, Birmingham B15 2TJ, UK* and **E COSTA**, *FIDIA-Georgetown Institute for the Neurosciences, 3900 Reservoir Road, Washington, DC 20007, USA*

Neuropharmacology publishes original research papers concerned with the actions of drugs and other biologically active substances on the central and peripheral nervous systems in animals and man. Its principal aim is to further the understanding of the mechanisms of drug action on the nervous system and to facilitate communication between the different scientific disciplines, and between basic science and clinical investigation. The journal encourages articles on molecular pharmacology, electrophysiological pharmacology, cytochemical neuropharmacology, and behavioural pharmacology or psychopharmacology. Publication is normally within six months of acceptance.

A Selection of Papers

R GODBOUT, Y CHAPUT, P BLIER & C DE MONTIGNY (Canada), Tandospirone and its metabolite, 1-(2-pyrimidinyl)-piperazine-I. Effects of acute and long-term administration of tandospirone on serotonin neurotransmission.

E CHOJNACKA-WÓJCIK & E PRZEGALINSKI (Poland), Evidence for the involvement of 5-HT_{1A} receptors in the anticonflict effect of ipsapirone in rats.

G TEUCHERT-NOODT & R R DAWIRS (FRG), Age-related toxicity in prefrontal cortex and caudate-putamen complex of gerbils *(Meriones unguiculatus)* after a single dose of methamphetamine.

H BACHELARD, R RIVEST & C A MARSDEN (UK), Posterior hypothalamic receptors involved in the cardiovascular changes elicited by electrical stimulation of the rostral ventrolateral medulla.

G -Z ZHOU, A G KATKI, S SCHWARZ, P J MUNSON & D RODBARD (USA), Quantitative characterization of multiple binding sites for phencyclidine and *N*-allylnormetazocine in membranes from rat and guinea pig brain.

Indexed/Abstracted in: *Current Awareness in Biological Sciences (CABS), Curr Cont ASCA, Excerp Med, Ind Med, MEDLINE, Psychol Abstr, Biosis Data, PASCAL-CNRS Data, Curr Cont/Life Sci, Curr Cont ISI/BIOMED Data, Curr Cont Sci Cit Ind, Curr Cont SCISEARCH Data*

(00279)

Subscription Information

1992: Volume 31 (12 issues)		
Annual subscription (1992)	**£560.00**	**US$895.00**
Two-year rate (1992/93)	**£1064.00**	**US$1700.50**

ISSN: 0028-3908

PERGAMON PRESS

Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW, UK
Pergamon Press, Inc., 395 Saw Mill River Road, Elmsford, NY 10523, USA

Advertising rate card available on request. Back issues and current subscriptions are also available in microform. Sterling prices quoted are definitive. US dollar prices are quoted for convenience only and are subject to exchange rate fluctuation. Prices shown include postage and insurance and apply worldwide except in Japan.

SEND FOR A FREE SAMPLE COPY OF...

NEUROPSYCHOLOGIA

AN INTERNATIONAL JOURNAL IN BEHAVIOURAL NEUROSCIENCE

Editor-in-Chief: **M JEEVES**, *Department of Psychology, University of St Andrews, St Andrews, Fife KY16 9JU, UK*

Neuropsychologia is an interdisciplinary journal of the neurological, medical and behavioural sciences. It is devoted to promoting the study and understanding of human behaviour from a neurological point of view, and to integrating clinical, genetic and experimental contributions into its field.
Published monthly, *Neuropsychologia* also presents papers focusing on the analysis of disorders of perception, action, intelligence, memory and language resulting from injury or disease of the cerebral cortex.
Special issues have dealt with subjects such as methods in neuropsychology, selective visual attention, memory, and developmental plasticity and recovery of function.

A Selection of Papers
H O KARNATH, C W WALLESCH & P ZIMMERMANN (FRG), Mental planning and anticipatory processes with acute and chronic frontal lobe lesions: a comparison of maze performance in routine and non-routine situations.
L BANDERA, S DELLA SALA, M LAIACONA, C LUZZATTI & H SPINNLER (Italy), Generative associative naming in dementia of Alzheimer's type.
S NISHIZAWA (Japan), Different pattern of hemisphere specialization between identical kinesthetic spatial and weight discrimination tasks.
M J TRAMO & J J BHARUCHA (UK), Musical priming by the right hemisphere post-callosotomy.

Indexed/Abstracted in: *Current Awareness in Biological Sciences (CABS), Curr Cont/Life Sci, Excerp Med, Ind Med, MEDLINE, Curr Cont Soc Behav Sci, Biosis Data, Curr Cont ASCA, Curr Cont/ISI BIOMED Database, Curr Cont Sci Cit Ind, Curr Cont SCISEARCH Data, Curr Cont Soc Sci Cit Ind*

(00247)
Subscription Information
1992: Volume 30 (12 issues)

Annual subscription (1992)	**£500.00**	**US$800.00**
Two-year rate (1992/93)	**£950.00**	**US$1520.00**

ISSN: 0028-3932

PERGAMON PRESS

Pergamon Press plc, Headington Hill Hall, Oxford OX3 0BW, UK
Pergamon Press, Inc., 395 Saw Mill River Road, Elmsford, NY 10523, USA

Advertising rate card available on request. Back issues and current subscriptions are also available in microform. Sterling prices quoted are definitive. US dollar prices are quoted for convenience only and are subject to exchange rate fluctuation. Prices shown include postage and insurance and apply worldwide except in Japan.

Printed in Great Britain by Nuffield Press Ltd